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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,199	10/02/2003	Robert D. P. Hei	163.1446USD1	2139

7590 02/26/2007  
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EXAMINER
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LEVY, NEIL S

ART UNIT	PAPER NUMBER
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1615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/678,199	HEI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	NEIL LEVY	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 44-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 44-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 44-63 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/06/12/03/5/04</u>   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

IDS was considered only to the extent the references would be considered in an office search. References crossed out were not submitted.

### ***Election/Restrictions***

Applicant's election with traverse of species peroxyacetic acid, acetic acid, leaves and fruit trees in the reply filed on 11/28/06 is acknowledged. The traversal is on the ground(s) that the methods can readily be searched with any peroxy compound and carboxylic acid, and that the inventive concept is independent of any particular plant tissue, and plant species.

This is not found persuasive because the compounds are chemically distinct, and would be expected to have varying effects.

We see applicant's arguments for any particular tree species and tissue as equivalent to any other species requirement for particular tissue, and tree.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 44-63 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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There is no disclosure and support for expectation of only 1 peroxy acid or other peroxy compound having any reduction in antimicrobial effects, particularly when applied to any plant tissue of any plant species. No trees at all were shown able to be reduced of microbes of any species or genera. One in the art would have to perform an inordinate amount of experimentation in order to determine which compounds are effective against which pest on which tree or plant.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 38 U. S. C. 112, the first paragraph have been described in re Wands, 8 USPQ2D 1400 (Fed Cir. 1988). Among these factors are (1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims. (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. When the above factors are weighed, it is the examiner's position that instant disclosure fails to meet the enablement requirement for the following reasons:

- (1) The nature of the invention: claims are to unqualified control and death by agents,
- (2) The state of the prior art shows the use of these compounds for specific antimicrobial functions.
- (3) The relative skill of those in the art. The relative skill of those in the art is high.
- (4) The predictability or unpredictability of the art. The unpredictability of the art is very high.
- (5) The breadth of the claims. The claims are broad.
- (6) The amount of direction or guidance presented. There are no examples directed at the claimed microbe reduction on living plant tissue.
- (7) The presence or absence of working examples.
- (8) The quantity of experimentation necessary extensive-there is no known levels of amount useful for any specific agent against any specific organism shown to exhibit death & destruction of any microbe on any particular living plant tissue.

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Claim 63 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

0.1% of peroxy acid and 5% carboxylic acid are outside of the claim 63 limitation of claim 62.

***Claim Rejections - 35 USC § 102***

***Claim Rejections - 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim, 44-60, 62, 63 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over HAMON GODIN et al 6166808

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An invention to improve disinfectants (column 1) for surface treatment is taught. See claim 1 methods of hard plant tissue-wood, from unspecified trees, are sprayed (column 8, line 15) and disinfected (reduction or elimination of microbes-fungus) by applying an aqueous composition of at least 5 ppm of peracetic acid and acetic acid. A 1:3 ratio is shown at Table, column 8, line 41-51, thus, meeting claims 44, 45, 48-54, 56-58. Although the claim is silent as to whether wood is living or not, there is nothing to preclude either case, thus the wood is considered as inclusive of both living and unseasoned. The instant invention, and dead woods, whether of apple, pear or other fruit, or other woods. Claim 1 includes hydrogen peroxide, and pH is in the instant range (Table, column 8, bottom; column 9, top) thus meeting instant claims 55, 59, and 60, as the compound (d) of claim 2.

Claims 44-63 rejected under 35 U.S.C. 103(a) as being unpatentable over HAMON GODIN et al 6166808 and EGGENSPERGER et al 4129517 or HILGREN et al 662765.

HAMON GODIN et al 6166808 provides the instant spraying of woods to reduce microbes, but do not specify added chelators to the aqueous compositions. EGGENBERGER does (column 5, lines 34-45) to provide added stability to peroxy acid aqueous composition, thus, it is obvious to add to the HAMON GODIN et al 6166808 composition in order to increase shelf life.

HILGREN (claim 11) also add chelators of the instant invention to peroxy acetic/carboxylic acid composition (claim 8).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize crop or tree pest control means, to use any of art recognized means, as of the Hamon-Godin sprays, modified as desired, as shown by Eggensperger to increase stability, dispersibility, compatibility of ingredients, processing ease, with specific useful agents shown by Hilgren to be utilized in these compositions.

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The amounts and proportions of each ingredient are result effective parameters chosen to obtain the desired effects. It would be obvious to vary the form of each ingredient to optimize the effect desired, depending upon the particular species and application method of interest, reduction of toxicity, cost minimization, enhanced, and prolonged, or synergistic effects.

Applicant has not provided any objective evidence of criticality, nonobvious or unexpected results that the administration of the particular ingredients' or concentrations provides any greater or different level of prior art expectation as claimed, and the use of ingredient for the functionality for which they are known to be used is not basis for patentability.

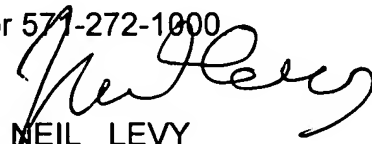
Any inquiry concerning this communication or earlier communications from the examiner should be directed to NEIL LEVY whose telephone number is 571-272-0619.

The examiner can normally be reached on Tuesday-Friday, 7 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



NEIL LEVY  
Primary Examiner  
Art Unit 1615